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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,403	02/27/2002	Keiichi Nakada	381AS/50981	7379

7590 10/21/2004

Crowell & Moring LLP  
The Evenson, McKeown, Edwards & Lenahan  
Intellectual Property Law Gr.  
1001 Pennsylvania Avenue, N.W.  
Washington, DC 20004-2595

EXAMINER
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PATEL, HARSHAD R

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/083,403	<b>Applicant(s)</b> NAKADA ET AL.	
	<b>Examiner</b> Harshad Patel	<b>Art Unit</b> 2855	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Hecht et al. (6,332,356) (hereinafter Hecht).

Hecht teaches a flow measuring device (1) comprising a sub-passage (10) installed in a main passage (2) through which a fluid flows; a detection element (21) installed in the sub-passage and capable of measuring a flow rate of a gas flowing in a forward direction and a flow rate of a gas flowing in a backward direction, the detection element provided with a sub-passage upstream temperature measuring resistor and a sub-passage downstream temperature measuring resistor (Col. 4, lines 61-63), the sub-passage having an outlet opening (30) in a radial direction of the main passage and a bent portion (Fig. 1) at least upstream of the detection element; and introducing means (41) provided near the outlet of the sub-passage to introduce the backward flow of the main passage into the sub-passage through the outlet by a dynamic pressure (Col. 6, lines 3-8). The sub-passage also has a bent portion between the outlet and the detection element.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht. Hecht shows all the features of the instant invention except for the structure of the sub-passages constructed of two members and the introducing means formed on one of the two members or the structure of the sub-passages including the lengths. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to form a path of flow that would be of equal distance from the detecting element since such an arrangement would provide accurate measurements without any errors. Furthermore, providing a sub-passages formed of two members would equally function as the sub-passages formed of a single element since the flow would pass through both the elements simultaneously. Furthermore providing two outlets compared to a single one would prevent blockage at the outlet area.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watanabe et al. (6,571,621) teach a flow measuring device having a bent portion of a sub-passages and an outlet opening in a radial direction.

Mueller et al. (6,345,531) teaches an introducing means at various positions at the outlet of the measuring device.

Weber (6,336,360) teaches a bent upstream and downstream portion of the sub-passages.

Yamakawa et al. (6,079,264) teach a well-known sensor structure including a heater having an upstream and downstream temperature sensor.

Art Unit: 2855

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harshad Patel whose telephone number is (571) 272-2187. The examiner can normally be reached on Monday-Thursday (7:00 AM-5:30 PM).



*Harshad Patel*

*Primary Examiner*

*Art Unit 2855*

hp  
October 19, 2004